

1 **In the Claims:**

2 Claims 1-53 were pending at the time of the Office Action.

3 Claims 1-53 are rejected.

4 No claims are canceled or amended by the current response.

5 Accordingly, claims 1-53 remain pending and, for the sake of convenience,
6 are provided in a complete list of claims as follows:
7

8 1. (Original) A method, comprising:
9 connecting to a server to receive streaming content at a first rate;
10 receiving a portion of the streaming content at the first rate;
11 requesting the server to send a particular amount of future streaming
12 content at a second rate;
13 receiving the particular amount of future streaming content at an actual rate
14 that is greater than the first rate and less than or equal to the second rate;
15 determining if the actual rate is viable for receiving the streaming content;
16 and
17 if the actual rate is viable for receiving the streaming content, requesting the
18 server to send remaining streaming content at a rate that is not greater than the
19 actual rate.
20

21 2. (Original) The method as recited in claim 1, further comprising
22 receiving the remaining streaming content at the first rate if the actual rate is not
23 viable for receiving the streaming content.
24
25

1 3. (Original) The method as recited in claim 1, further comprising
2 specifying the first rate.

3
4 4. (Original) The method as recited in claim 1, further comprising
5 determining the first rate from a history file that identifies at least one previous
6 rate of connection with the server.

7
8 5. (Original) The method as recited in claim 4, wherein the
9 determining the first rate from a history file further comprises taking a median rate
10 from one or more rates stored in the history file.

11
12 6. (Original) The method as recited in claim 1, further comprising
13 calculating available connection bandwidth to determine the first rate.

14
15 7. (Original) The method as recited in claim 1, wherein the
16 particular amount of future streaming content further comprises a certain number
17 of seconds of streaming content data.

18
19 8. (Original) The method as recited in claim 1, wherein the
20 particular amount of future streaming content further comprises a certain number
21 of data packets of streaming content data.

22
23 9. (Original) The method as recited in claim 1, wherein the
24 particular amount of future streaming content further comprises a certain number
25 of bytes of streaming content data.

1
2 10. (Original) The method as recited in claim 1, wherein the
3 receiving the particular amount of future streaming content at the actual rate
4 further comprises detecting an indication of when the particular amount of future
5 streaming data begins.

6
7 11. (Original) The method as recited in claim 10, wherein the
8 indication of when the particular amount of future streaming data begins
9 comprises a time stamp.

10
11 12. (Original) The method as recited in claim 10, further comprising
12 detecting an indication of when the particular amount of future streaming data
13 ends.

14
15 13. (Original) The method as recited in claim 12, wherein the
16 indication of when the particular amount of future streaming data ends further
17 comprises a certain number of data packets of streaming content data received.

18
19 14. (Original) The method as recited in claim 12, wherein:
20 the indication of when the particular amount of future streaming data
21 begins further comprises a sequence number of a first data packet of the future
22 streaming data; and

23 the indication of when the particular amount of future streaming data ends
24 further comprises a sequence number of a last data packet of the future streaming
25 data.

1
2 15. (Original) The method as recited in claim 1, further comprising
3 using at least some of the particular amount of future streaming content received at
4 the actual rate to increase content stored in a content buffer.

5
6 16. (Original) A method, comprising:
7 receiving a request from a client to stream content to the client at a first
8 transmission rate;
9 streaming content to the client at the first transmission rate;
10 receiving a request from the client to increase the streaming to a second
11 transmission rate for a specified amount of content data;
12 streaming the specified amount of content data to the client at the second
13 transmission rate; and
14 resuming streaming content to the client at the first transmission rate.

15
16 17. (Original) The method as recited in claim 16, further comprising
17 providing an indication to the client of when the content streamed at the second
18 transmission rate begins.

19
20 18. (Original) The method as recited in claim 17, wherein the
21 providing an indication further comprises flagging a first data packet transmitted
22 at the second transmission rate.
23
24
25

1 19. (Original) The method as recited in claim 17, further comprising
2 providing an indication to the client of when the content streamed at the second
3 transmission rate concludes.

4
5 20. (Original) The method as recited in claim 16, wherein the
6 specified amount of content data to be transmitted at the second transmission rate
7 is identified as a number of seconds of content data.

8
9 21. (Original) The method as recited in claim 16, wherein the
10 specified amount of content data to be transmitted at the second transmission rate
11 is identified as a number of data packets.

12
13 22. (Original) The method as recited in claim 16, wherein the
14 specified amount of content data to be transmitted at the second transmission rate
15 is identified as a number of bytes of content data.

16
17 23. (Original) The method as recited in claim 16, further comprising:
18 receiving a request to stream remaining content at the second transmission
19 rate; and
20 transmitting remaining streaming content at the second transmission rate.

21
22 24. (Original) A system, comprising:
23 an interface to a network that provides at least a connection to a server;
24
25

1 a control module configured to receive streaming content from the server at
2 a first streaming rate and request the server to modify the first streaming rate to a
3 second streaming rate for a specified amount of streaming content data;

4 a bandwidth measurement module configured to determine an actual
5 streaming rate resulting from the request to modify the first streaming rate to the
6 second streaming rate, and to determine the adequacy of the streaming at the
7 actual streaming rate; and

8 wherein the control module is further configured to request the server to
9 stream remaining streaming content at a rate that is not greater than the actual
10 streaming rate if the bandwidth measurement module determines that the actual
11 streaming rate is adequate for streaming the remaining streaming content.

12
13 25. (Original) The system as recited in claim 24, wherein the second
14 streaming rate is higher than the first streaming rate.

15
16 26. (Original) The system as recited in claim 24, further comprising a
17 history list that contains at least one streaming rate at which the server has
18 adequately streamed content to the client.

19
20 27. (Original) The system as recited in claim 26, wherein the control
21 module is further configured to derive the first streaming rate from the history list.

22
23 28. (Original) The system as recited in claim 26, wherein the control
24 module is further configured to store the actual streaming rate in the history list.
25

1 29. (Original) The system as recited in claim 24, wherein the
2 specified amount of streaming content data is denoted as a particular number of
3 seconds of streaming content data.
4

5 30. (Original) The system as recited in claim 24, wherein the
6 specified amount of streaming content data is denoted as a particular number of
7 bytes of streaming content data.
8

9 31. (Original) The system as recited in claim 24, wherein the
10 specified amount of streaming content data is denoted as a particular number of
11 data packets of streaming content data.
12

13 32. (Original) The system as recited in claim 24, wherein the
14 bandwidth measurement module determines the adequacy of the streaming at the
15 actual streaming rate while content is being streamed to the client over the
16 network at the actual streaming rate.
17

18 33. (Original) A system, comprising:
19 a network interface configured to provide at least a connection to a client
20 over a network;

21 one or more multi-bitrate files that store two or more versions of streaming
22 content, each version being configured for transmission at a different streaming
23 rate; and

24 a control module configured to identify a request from the client to modify
25 a first streaming rate at which a version of the streaming content stored in a multi-

1 bitrate file is being transmitted to the client to a second streaming rate for a limited
2 amount of streaming content data.

3
4 34. (Original) The system as recited in claim 33, wherein the control
5 module is further configured to identify streaming content data transmitted to the
6 client at the second streaming rate.

7
8 35. (Original) The system as recited in claim 34, wherein the control
9 module is further configured to identify the streaming content data transmitted at
10 the second streaming rate by flagging one or more data packets included in the
11 streaming content data transmitted at the second streaming rate as being data
12 packets sent at the second streaming rate.

13
14 36. (Original) The system as recited in claim 33, wherein the limited
15 amount of streaming content data is identified as a particular number of seconds of
16 streaming content data.

17
18 37. (Original) The system as recited in claim 33, wherein the control
19 module is further configured to identify a request from the client to transmit
20 streaming content remaining after the limited amount of streaming content data
21 has been streamed at the second streaming rate.

22
23 38. (Original) One or more computer-readable media containing
24 computer-executable instructions that, when executed on a computer, perform the
25 following steps:

1 requesting a server to transmit content file data over a network at a first
2 transmission rate;

3 while receiving a portion of the content file data at the first transmission
4 rate, requesting the server to transmit a limited portion of the content file data over
5 the network at a second transmission rate;

6 receiving the limited portion of the content file data from the server at an
7 actual transmission rate which is less than or equal to the second transmission rate;

8 determining if the network can viably support transmission of the content
9 file data at the actual transmission rate;

10 if the network can viably support transmission of the content data at the
11 actual transmission rate, requesting the server to transmit subsequent content file
12 data at a rate that is not greater than the actual transmission rate;

13 if the network cannot viably support transmission of the content data at the
14 actual transmission rate, receiving subsequent content file data at the first
15 transmission rate; and

16 wherein the subsequent content file data is content file data that is
17 transmitted after the limited portion of content file data has concluded
18 transmission.

19
20 39. (Original) The one or more computer-readable media as recited
21 in claim 38, further comprising storing the actual rate in a history file associated
22 with the server that contains one or more previous transmission rates at which
23 content file data was adequately received from the server.
24
25

1 40. (Original) The one or more computer-readable media as recited
2 in claim 38, further comprising determining the first transmission rate from a
3 history list associated with the server that contains one or more previous
4 transmission rates at which content file data was adequately received from the
5 server.

6
7 41. (Original) The one or more computer-readable media as recited
8 in claim 40, wherein the determining the first transmission rate from a history list
9 further comprises determining a median rate included in the history list as the first
10 transmission rate.

11
12
13 42. (Original) The one or more computer-readable media as recited
14 in claim 38, further comprising calculating available network bandwidth to
15 determine the first transmission rate.

16
17 43. (Original) The one or more computer-readable media as recited
18 in claim 38, further comprising detecting when the transmission of the content file
19 data at the actual transmission rate begins.

20
21 44. (Original) The one or more computer-readable media as recited
22 in claim 38, wherein the limited portion of the content file data is specified as a
23 number of seconds of transmission of content file data.

1 45. (Original) The one or more computer-readable media as recited
2 in claim 38, wherein the limited portion of the content file data is specified as a
3 number of bytes of content file data.

4
5 46. (Original) The one or more computer-readable media as recited
6 in claim 38, wherein the limited portion of the content file data is specified as a
7 number of data packets of content file data.

8
9 47. (Original) The one or more computer-readable media as recited
10 in claim 38, wherein the actual transmission rate is a higher rate than the first
11 transmission rate.

12
13 48. (Original) The one or more computer-readable media as recited
14 in claim 38, wherein the actual transmission rate is a lower rate than the first
15 transmission rate.

16
17 49. (Original) One or more computer-readable media containing
18 computer-executable instructions that, when executed on a computer, perform the
19 following steps:

20 transmitting content file data to a client over a network at a first
21 transmission rate;

22 receiving a request from the client to transmit a limited portion of content
23 file data to the client at a second transmission rate;

24 transmitting the limited portion of content file data to the client at the
25 second transmission rate;

1 transmitting content file data subsequent to the limited portion of content
2 file data to the client at the first transmission rate.

3
4 50. (Original) The one or more computer-readable media as recited
5 in claim 49, further comprising identifying content file data transmitted at the
6 actual transmission rate.

7
8 51. (Original) The one or more computer-readable media as recited
9 in claim 50, wherein the identifying further comprises flagging a first data packet
10 of content file data transmitted at the second rate.

11
12 52. (Original) The one or more computer-readable media as recited
13 in claim 50, wherein the identifying further comprises flagging each data packet of
14 content file data transmitted at the second rate.

15
16 53. (Original) The one or more computer-readable media as recited
17 in claim 50, wherein the identifying further comprises beginning transmission of
18 the content file data at a specified time.